



WARRINGTON TOWNSHIP SERVICE AREA – PWSID # 1090070

2022 ANNUAL DRINKING WATER QUALITY REPORT – CONSUMER CONFIDENCE REPORT

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien. (This report contains important information about your drinking water. Translate it or speak with someone who understands it.)

This report includes information about where your Water comes from, what it contains and how it compares with the standards set by the Pennsylvania Department of Environmental Protection (PADEP) and the Environmental Protection Agency (EPA) Safe Drinking Water Act (SDWA). You are being provided a copy of this report in compliance with the Safe Drinking Water Act. Landlords, businesses, other property owners are strongly encouraged to share this water quality report with their tenants and employees.

OUR COMMITMENT TO QUALITY

The North Wales Water Authority takes great pride in delivering water of the highest quality to our customers. We are committed to provide drinking water which meets all state and federal Safe Drinking Water Act Requirements.

We are also available to talk to your group. You may request a visit by calling our office at 267-482-6940 or filling out a form on our website.

If you'd like to learn more about NWWA, please attend any of our regularly scheduled Board of Directors meetings. The Board meets on the 3rd Wednesday of each month at 5:00 p.m. at the Authority Office at 200 W. Walnut Street in North Wales.

SOURCES OF WATER:

During 2022 all water supplied though the Warrington Township service area public water system was provided from North Wales Water Authority and the Forest Park Water Treatment Plant. A treatment system for Wells 1, 2, and 6 has been constructed, which will remove PFOA and PFOS to non-detectable levels. These wells were not used to supply water in 2022, however they are available to be used as supplemental source of supply during times of drought or other emergencies. Treatment systems for additional wells are planned and funding for these treatment systems is being obtained from Federal and State Agencies.

Source Water Assessments of the NWWA Forest Park Water Treatment Plant and the Warrington Township service area were completed by the PA Department of Environmental Protection in February 2003 and June 2005, respectively. The systems were found to be potentially susceptible to contamination in transportation corridors; from auto repair shops; and from storm water runoff from agricultural fields, lawn care, golf courses, and parking lots. A summary report of the Assessments is available on the Source Water Assessment Summary Reports eLibrary Web Page, www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4499. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the PADEP Southcentral Regional Office, Records Management Unit at (484)250-5910.

MONITORING YOUR WATER:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before it is treated include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and PADEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat and monitor our water according to their regulations. FDA and PADEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

OUR 2022 WATER MONITORING RESULTS:

During 2022, North Wales Water Authority conducted hundreds of tests for possible drinking water contaminants. We detected no contaminant levels higher than the State and Federal Drinking Water standards allow. Similar testing was also completed by the Forest Park Treatment Plant. This arrangement results in some duplication of testing, but also provides more quality control.

The attached tables summarize the results of monitoring for the year 2022. Dozens of other contaminants that were tested for, but not detected, are not listed. Unless otherwise noted, the data presented in the tables is from testing done from January 1, 2022, to December 31, 2022. The PADEP requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, are more than 1 year old.

DEFINITIONS AND ABBREVIATIONS:

These are the definitions of the terms and abbreviations used in Tables 1 and 2 on the inside of this folder:

- **MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- **MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **ppm (parts per million):** one part per million corresponds to one minute in two years, a single penny in \$10,000, one ounce to 31 tons, or 1 inch in 16 miles.
- **ppb (parts per billion):** one part per billion corresponds to one second in 32 years, a single penny in \$10 million, a pinch of salt to 10 tons of potato chips, or 1 inch in 16,000 miles.
- **ppt (parts per trillion):** one part per trillion corresponds to one second in 32,000 years, a single penny in \$10 billion, a pinch of salt to 10,000 tons of potato chips, or 1 inch in 16,000,000 miles.
- **pCi/l (picocuries per liter):** picocuries per liter is a measure of the radioactivity of water.
- **NTU (Nephelometric Turbidity Unit):** nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **AL (Action Level):** the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **TT (Treatment Technique):** a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **MinRDL (Minimum Residual Disinfectant Level):** The minimum level of residual disinfectant required at the entry point to the distribution system.

**2022 Water from North Wales Water Authority
Forest Park Water Treatment Plant
Warrington Township – PWSID 1090070**

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine (in distribution system)	4.0	4.0	0.90	0.20-1.63	ppm	2022	No	Water additive used for disinfection.
Nitrate (as Nitrogen)	10	10	0.524	0.308-0.755	ppm	2022	No	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
Barium	2	2	0.018	N/A	ppm	2022	No	Discharge of drilling wastes; discharge from metal foundries; erosion of natural deposits.
Bromate	10	0	2.0	1.1-2.8	ppb	2022	No	By-product of drinking water disinfection.
Fluoride	2	2	0.102	N/A	ppm	2022	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Cyanide	200	200	3.5	0-7	ppb	2022	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories

***In addition, during 2022, North Wales Water Authority/Forest Park Water Treatment Plant conducted testing for volatile organic contaminants, regulated inorganic contaminants, synthetic organic contaminants, and unregulated contaminants (for example perfluorinated compounds) with none detected except those listed above, and PFOA and PFOS, (see below).

Entry Point Disinfectant Residual

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.20	1.20	1.20-1.67	ppm	2022	No	Water additive used to control microbes.

Note: All groundwater supply wells were out of service in 2022. All public water was provided by North Wales Water Authority from the Forest Park Water Treatment Plant.

Lead and Copper

Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead 6/2022	15	0	1.0	ppb	0 out of 30	No	Corrosion of household plumbing.
Copper 6/2022	1.3	1.3	0.14	ppm	0 out of 30	No	Corrosion of household plumbing.

Turbidity

Contaminant	MCL	MCLG	Level Detected	Range of Detections	Sample Date	Violation Y/N	Sources of Contamination
Turbidity*	TT=1 NTU for a single measurement	N/A	0.04	0.03-0.05	2022	No	Soil runoff.

*100% of Turbidity samples were below 0.1 NTU. As a member of the Partnership for Safe Drinking Water, our goal is to maintain turbidity levels below 0.1 NTU. This was achieved throughout 2022.

Microbial – Coliform Bacteria, Cryptosporidium and Giardia

Contaminant	MCL	MCLG	Highest Level Detected	Range of Detections	Sample Date	Violation Y/N	Sources of Contamination
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*Coliform bacteria including Total Coliform and E. Coli were monitored on a continuous basis in 2022. Both parameters were not detected in accordance with the regulations of the PA Department of Environmental Protection.

** Raw water monitoring for Giardia and Cryptosporidium was performed in April, June, September, and December 2022. Giardia was detected in 1 out of 4 samples. Cryptosporidium was detected in 2 out of 4 samples. Cryptosporidium and Giardia are both naturally present in the environment.

Unregulated Chemical Contaminants – Perfluorinated Compounds, Forest Park Treatment Plant

Contaminant	Health Advisory Limit (PFOS and PFOA Combined)	Level Detected	Range of Detection	Units	Sample Date	Sources of Contamination
Perflouroctanesulfonic Acid (PFOS)	70	0.5	**ND -2.1	ppt	2022	Firefighting foam and other man-made sources
Perflouroctanoic Acid (PFOA)	70	2.5	2.1 – 3.2	ppt	2022	Firefighting foam and other man-made sources

*ppt – parts per trillion

**not detected, less than reporting limit

INFORMATION ABOUT LEAD:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. North Wales Water Authority is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 or visit the EPA website at www.epa.gov/safewater/dwhealth.

Updated Data Tables for 2022 CCR – PWSID#: 1090070

Haloacetic Acids (HAA5)

Contaminant	MCL in CCR Units	MCLG	Range of Detections	Amount Detected	Units	Violation Y/N	Sources of Contamination
Haloacetic Acids (HAA5)	60	0	7.06-25.0	14.8	ppb	N	By-products of drinking water disinfection.

Constituents of Disinfection Byproducts: Haloacetic Acids (HAAs)

Contaminant	HA*	Range of Detections	Amount Detected	Units	Violation Y/N	Sources of Contamination
Dibromoacetic acid	—	—	1.10	ppb	N	By-product of drinking water chlorination
Dichloroacetic acid	70.0	2.01-16.60	8.60			
Trichloroacetic acid	20.0	2.05-13.60	7.80			

We had no detection of Monobromoacetic Acid or Monochloroacetic Acid.

*EPA's lifetime health advisories (HA) identify levels to protect all people, including sensitive populations and life stages, from adverse health effects resulting from exposure throughout their lives to various contaminants.

Total Trihalomethanes (TTHMs)

Contaminant	MCL in CCR Units	MCLG	Range of Detections	Amount Detected	Units	Violation Y/N	Sources of Contamination
Total Trihalomethanes (TTHM)	80	0	7.64-65.9	34.2	ppb	N	By-products of drinking water disinfection.

Constituents of Disinfection Byproducts: Total Trihalomethanes (TTHMs)

Contaminant	HA*	Range of Detections	Amount Detected	Units	Violation Y/N	Sources of Contamination
Bromodichloromethane	—	1.90-14.40	7.35	ppb	N	By-product of drinking water chlorination
Bromoform	—	—	0.57			
Chlorodibromomethane	60.0	0.88-5.23	2.53			
Chloroform	70.0	4.84-58.10	29.56			

*EPA's lifetime health advisories (HA) identify levels to protect all people, including sensitive populations and life stages, from adverse health effects resulting from exposure throughout their lives to various contaminants.